FUNCTIONAL ANALYSIS AND ITS APPLICATIONS Volume 13, Numbers 1-4, 1979

(A translation of Funktsional'nyi Analiz i Ego Prilozheniya)

Volume 13, Number 1

January-March, 1979

(A) III A SAN THE RESIDENCE OF THE RESID	Engl./Russ.	
Hamiltonian Formalism for the Novikov-Krichever Equations for the Commutativity		
of Two Operators - A. P. Veselov	1	1
Integrable Nonlinear Equations and the Liouville Theorem - I. M. Gel'fand		
and L. A. Dikii	6	8
Reflexive Subspaces of the Space C*A - S. V. Kislyakov	16	21
Soliton Sectors in Continuous Time Lattice Models - V. A. Malyshev	23	31
Amenable Banach Algebras - A. Ya. Khelemskii and M. V. Sheinberg	31	42
Index of a Polynomial Field - A. G. Khovanskii	38	49
Invariant Normal Forms of Formal Series - G. R. Belitskii	46	59
Product of Commuting Spectral Measures Need Not Be Countably Additive		
- M. Sh. Birman, A. M. Vershik, and M. Z. Solomyak	48	61
Versal Deformations of Singular Points of Vector Fields on a Plane - R. I. Bogdanov A Formula for the Ranks of the Homology Groups of the Boundary of an Isolated	50	63
Singularity of a Surface in C ³ and the Newton Diagram - A. N. Varchenko	52	65
Weyl's Formula in the Spectral Theory of Automorphic Functions - A. B. Venkov		
and M. M. Skriganov	54	67
Expansion of Invariant Operators - A. Ya. Zaslavskii	56	69
Spectrum of Automorphisms with Weight and the Kamowitz-Scheinberg Theorem		
- A. K. Kitover	57	70
Floquet Representation of Solutions of Linear Hypoelliptic Systems of Partial		
Differential Equations - P. A. Kuchment	59	72
Traces of Linear Operators in Locally Convex Spaces - G. L. Litvinov	60	73
Concept of a Normed Space of Cotype p < 2 - D. Kh. Mushtari	62	75
Shadow and Terminator of a Hypersurface of General Position - O. A. Platonova	64	77
One Property of Lindenstrauss - Phelps Spaces - V. P. Fonf	66	79
- I. V. Cherednik	68	81
One Class of Toeplitz Operators Connected with the Divisibility of Analytic Functions		
F. A. Shamoyan	70	83
Regular Averaging Operators - L. B. Shapiro	71	84
Standard Ideals of Algebra H _n - N. A. Shirokov	73	86
One Fixed-Point Theorem - V. S. Shul'man	74	88
- M. A. El-Said	75	90
Volume 13, Number 2 April-June, 1979		
Mark Aronovich Naimark	79	
Characteristic Pontryagin Cycles in a Cech Complex - A. M. Gabrielov	80	1
S. G. Gindikin, and Z. Ya. Shapiro	87	11
Newton Polyhedra and Vanishing Cohomology - V. I. Danilov	103	32
The second secon		

	Engl./	Engl./Russ.	
	-		
	115	48	
Vlasov Equations – R. L. Dobrushin	124	59	
BRIEF COMMUNICATIONS			
Instantons and Grassmann Manifolds - F. A. Berezin	135	75	
Index of a Stationary Point of a Vector Field on the Plane - F. S. Berezovskaya Estimates of the Rotation of Vector Fields on Algebraic Varieties	137	- 77	
- N. M. Bliznyakov	138	78 79	
State Density of Multidimensional Integral Operators — T. E. Bogorodskaya Invariant States on Asymptotically Abelian Factors of Type III	139	19	
- V. Ya. Golodets and N. I. Nessonov	141	81	
Classes of Uniqueness for Integrodifferential Equations with Volterra Operators of Convolution Type - A. S. Kalashnikov	143	83	
Perturbations of a Fractional Integration Operator – M. M. Malamud	145	85	
Left-Invariant Measures on Open Stable Subsets of Locally Compact		00	
Metrizable Groups - V. V. Mukhin	147	87	
Automorphisms and Real Forms of a Class of Complex Algebraic Curves			
- S. M. Natanzon	148	89	
Symmetric Space - V. A. Rodin and E. M. Semenov	150	91	
Subspaces of Symmetric Spaces of Functions – E. V. Tokarev	152	93	
- O. P. Shcherbak	154	95	
Volume 13, Number 3 July-September, 1979			
Model Algebras and Representations of Graphs — I. M. Gel'fand			
and V. A. Ponomarev	157	1	
of Inverse Scattering. II V. E. Zakharov and A. B. Shabat	166	13	
Curvature of Groups of Diffeomorphisms Preserving the Measure of the 2-Sphere — A. M. Lukatskii	174	23	
Finiteness of Quotient Groups of Discrete Subgroups — G. A. Margulis	, 178	28	
Factorization of Operators in L^2 $(\alpha, b) - L$. A. Sakhnovich	187	40	
Ergodic Properties of the Lorentz Gas — Ya. G. Sinai	192	46	
Topological Structure of Normally Solvable First Boundary-Value Problems	203	60	
in the Plane - P. A. Frolov	212	60 71	
Construction of M-Surfaces — 0. Ya. Viro			
is a Local Non-Archimedean Field — A. D. Gvishiani	214	73	
Maximal Ideal Spaces of Invariant Algebras — V. M. Gichev	216	75	
- A. Ya. Gordon	218	77	
Problem of Reflection from a Boundary for the Equation $h^2 \square u + \alpha \sinh u = 0$			
and Finite-Zone Conditionally Periodic Solutions — S. Yu. Dobrokhotov and V. P. Maslov	220	79	
A Theorem of M. G. Krein and M. A. Rutman - P. P. Zabreiko		0.1	
and S. V. Smitskikh	222 224	81	
A Geometric Criterion for Strong Linear Convexity — S. V. Znamenskii Propagation of Singularities of Solutions of Nonclassical Boundary-Value			
Problems for the Wave Equation — A. Ya. Ivrii	226	85	
Divergence of Series Reducing an Analytic Differential Equation to Linear	227	87	
Normal Form at a Singular Point — Yu. S. Il'yashenko	221	07	
Commutation Relations — M. V. Karasev	229	89	
Extremal Chains of Subspaces for Kolmogorov and Linear Diameters		-	
- V. E. Maiorov	231	91	

	Engl./Russ	
Asymptotic Behavior of Spectra of Operators which Are Close to Normal — A. S. Markus and V. I. Matsaev	233	93
Finite Propagation Velocity and Essential Self-Adjointness of Certain Differential Operators — Yu. B. Orochko	235	95
Volume 13, Number 4 October-December, 1979		
Asymptotic Behavior of Exponential Integrals in the Complex Domain		
- V. A. Vasil'ev	239	1
and I. Ya. Dorfman	248	13
- V. I. Zvonilov	262	31
Group - D. R. Lebedev and Yu. I. Manin	268	40
- K. Rozhe	273	47
- A. V. Abanin	278	53
- M. S. Agranovich	279	54
- Yu. E. Anikonov	282	57
- A. G. Aslanyan	283	59
of Dissipative Operators – Wu Kwok Fong	286	62
of Differential Forms - I. M. Gel'fand, S. G. Gindikin, and M. I. Graev	288	64
Parabolic Mappings of Differentiable Manifolds - I. M. Dektyarev	291	67
Spectrum of the Generalized Hill Operator - V. A. Dmitrushchenkov	292	69
as Inductive Limit of Groups of Diffeomorphisms of Coordinate Neighborhoods		
-R. S. Ismagilov	294	71
The K-Functor in the Theory of Extensions of C*-Algebras - G. G. Kasparov	296	73
Trace Formulas for a Spectral Boundary Problem - Yu. V. Kogan	298	75
Symmetric Operators Commuting with a Family of Unitary Operators - A. N. Kochubei	300	77
Some Propositions of the Fourier-Plancherel and Paley-Wiener Type Obtained by Methods in the Spectral Theory of Functions - M. G. Krein		
and A. A. Nudel'man	301	79
Rational Solutions of the Duality Equations for Yang-Mills Fields - I. M. Krichever	303	81
Classification of Von Neumann J-Algebras – M. M. Mel'tser	305	83
Description of Interpolation Orbits – V. I. Ovchinnikov	308	85
Volterra Operators with Imaginary Components in a Given Symmetrically Normalized		
Ideal - G. I. Russu	310	87
Normalized Ideal - G. I. Russu	310	87
An Inverse Problem - R. P. Tarasov and N. Yu. Bakaev	312	89
Invariant Differential Operators on the Line - B. L. Feigin and D. B. Fuks Expansion of a Convolution of Gaussian and Poisson Distributions of Locally Compact	314	91
Abelian Groups - G. M. Fel'dman and A. E. Fryntov	316	93
INDEX Author Index Volume 12 Numbers 1 4 1070	001	
Author Index, Volume 13, Numbers 1-4, 1979	321 323	
Tables of Contents, volume 10, mumbers 1-1, 1010	040	

The second secon